

AD-AG82 447

ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
19304 MLRS MISSILE NUMBERS 1085, 1087, 1088, 1089, 1090, 1092, --ETC(U)

NOV 79

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of the 19304B RS, Missile Numbers 1085, 1087, 1088, 1089, 1090, 1092, Round Numbers V-83 thru V-88 are presented in tabular form.		

42066

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INTRODUCTION

19304B MLRS, Missile Numbers 1085, 1087, 1088, 1089, 1090 and 1092, Round Numbers V-83 thru V-88, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1406 MST, 16 Nov 79. The scheduled launch time was 1400 MST.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from RAPTS T-9 pibal observation at:

SITE AND ALTITUDE

LC-33	2 km
Nick	2 km

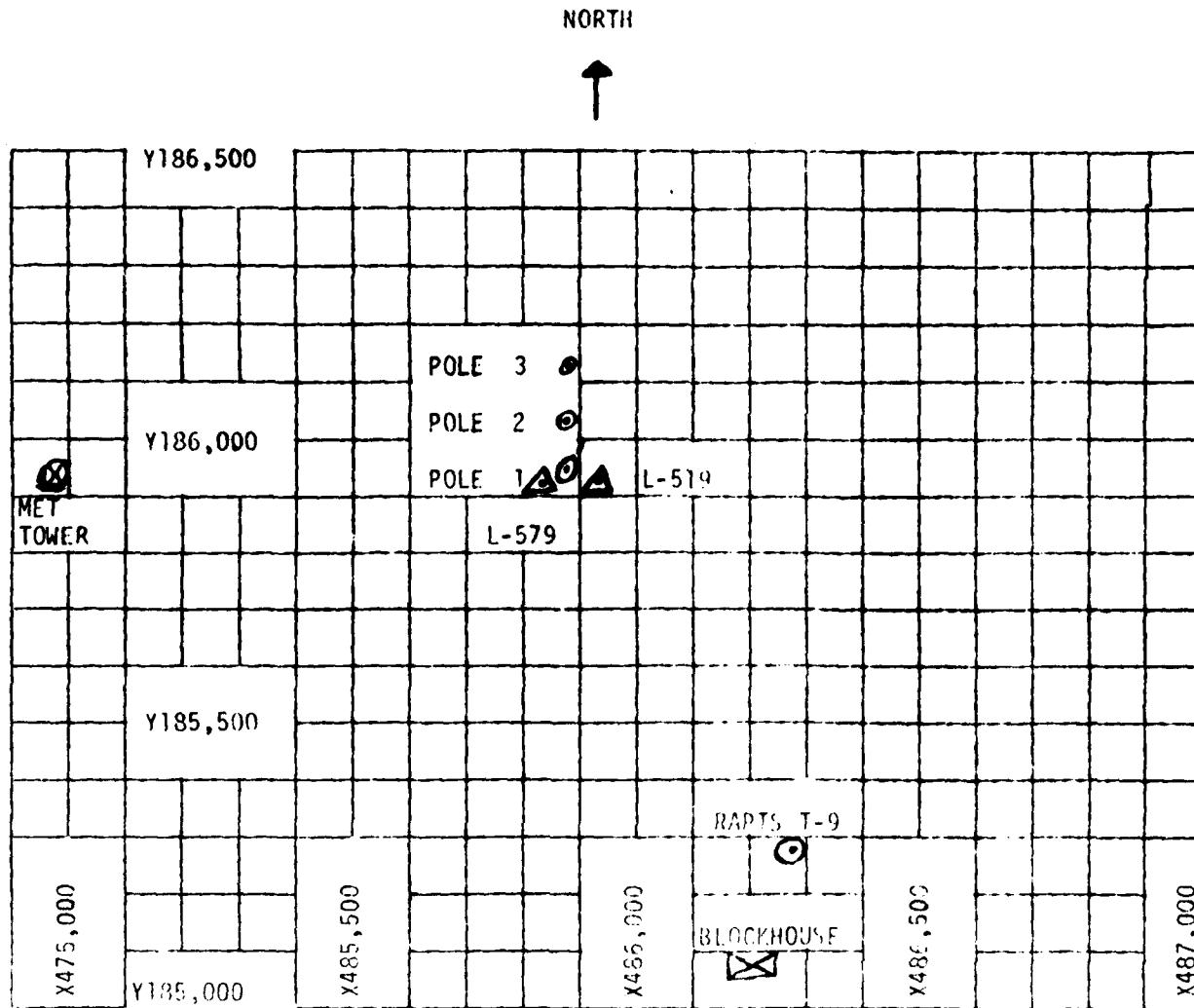
(2) Air structure data (rawinsonde) were collected at the following Met Sites. Data were collected from surface to 87,000 feet in 500-feet increments.

SITE AND TIME

SMR 1400 MST

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Unknown cod	
Justification	
By	
Distribution	
Approval	
Analyst	Approved
Dist	Special

R



1. MET TOWER - 4 Bendix Model T-20 Anemometers at 12 ft, 62 ft, 102 ft, and 202 ft with E/A recorders.
2. POLE ANEMOMETER - Bendix Model T-120 with E/A recorders.
 - (a) Pole #1 - 38.7 ft.
 - (b) Pole #2 - 53.0 ft.
 - (c) Pole #3 - 83.6 ft.
3. RAPTS T-9 Radar Automatic Pilot-Balloon Tracking System T-9 Radar.

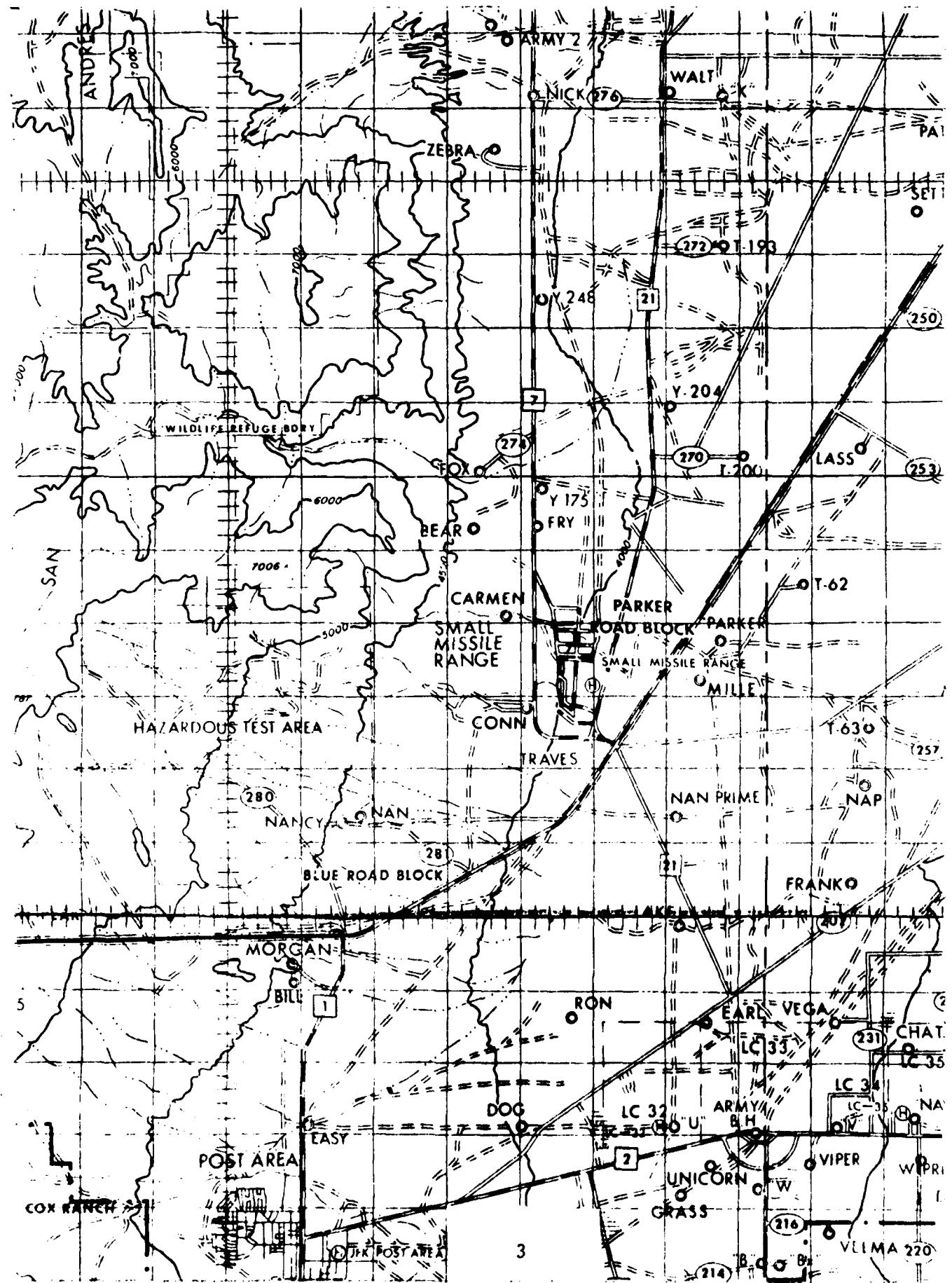


TABLE 1. Surface Observations taken at 1406 MST,
16 November 1979, at LC-33, 19304B MLRS,
Missile Numbers 1085, 1087, 1088, 1089,
1090, and 1092, Round Numbers V-83 thru
V-88.

ELEVATION	3977.30	FT/MSL
PRESSURE	884.4	MBS
TEMPERATURE	17.1	°C
RELATIVE HUMIDITY	35	%
DEW POINT	1.5	°C
DENSITY	1060	GM/M ³
WIND SPEED	12	KTS
WIND DIRECTION	162	DEGREES
CLOUD COVER	1	Ac

TABLE 2

LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1			POLE #2			POLE #3		
X485,874.29			X485,874.93			X485,877.29		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	129	08	-30	130	05	-30	141	07
-20	145	09	-20	143	07	-20	142	12
-10	166	08	-10	148	06	-10	151	09
0.0	162	10	0.0	156	08	0.0	164	10
+10	135	10	+10	135	09	+10	150	09

TABLE 3

LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
	159	06	-30	170	09
	161	09	-20	165	11
-10	149	MISG	-10	163	MISG
0.0	143	MISG	0.0	170	MISG
+10	159	MISG	+10	177	MISG

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 102 FEET X484,982, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
-30	159	11	-30	173	10
-20	161	12	-20	173	10
-10	168	MISG	-10	168	MISG
0.0	177	MISG	0.0	167	MISG
+10	173	MISG	+10	180	MISG

PILOT BALLOON MEASURED WIND DATA

TABLE 4

RELEASED FROM LC-33 DATE 16 November 1979 TIME 1406 MST

TRACKER COORDINATES (WSTM) X = 486,037.24 Y = 182,350.16 H = 3977.30

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH

HEIGHTS ARE METERS AGL X OR FEET AGL _____

PILOT BALLOON MEASURD WIND DATA

TABLE 5

RELEASED FROM Nick DATE 16 November 1979 TIME 1406 MST
TRACKER COORDINATES (WSTM) X= 470,734.56 Y= 255,775.64 H= 4126.56

NOTE: WIND DIRECTIONS ARE REFERENCED TO TRUE NORTH

HEIGHTS ARE METERS AGL xx OR FEET AGL xx.

STATION ALTITUDE 3997.30 FEET MSL
16 NOV. 79 1400 HRS MST
ASCENSION NO. 374

SIGNIFICANT LEVEL DATA
320060374
S M R

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

TABLE 6

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES	AIR DEMPNT CENTIGRADE	REL. HUM. PERCENT
883.8	3997.3	17.0	-1.1	29.0
850.0	5022.0	13.8	-4.4	28.0
795.4	6696.8	8.0	-4.4	41.0
765.6	7929.6	5.1	-4.4	50.0
745.8	8631.6	4.0	-2.2	72.0
703.0	10318.9	1.4	-2.6	77.0
679.6	11099.2	-1.0	-2.6	89.0
670.2	11464.3	-1.9	-5.2	78.0
652.0	12183.5	-3.1	-5.3	85.0
589.6	14777.9	-8.4	-13.2	68.0
531.0	15152.3	-9.4	-13.8	70.0
563.8	15914.3	-10.6	-19.2	50.0
555.4	15295.6	-11.1	-27.2	25.0
522.4	17831.3	-14.1	-27.1	32.0
500.0	18319.1	-17.0	-28.2	37.0
490.2	19498.0	-16.7	-29.1	33.0
474.2	20225.0	-18.6	-35.9	20.0
443.8	21837.2	-22.7	-32.8	39.0
436.2	22253.2	-23.8	-30.8	52.0
406.8	23916.3	-28.0	-34.4	54.0
400.0	24315.9	-28.9	-33.5	64.0
365.4	25185.7	-31.0	-35.1	67.0
357.8	26206.1	-35.0	-43.5	41.0
318.6	29534.7	-41.4	-50.8	35.0
300.0	30877.2	-42.0		
250.0	34396.2	-47.2		
242.4	35569.0	-47.3		
200.0	39688.7	-54.9		
182.8	41574.3	-56.9		
174.0	42606.0	-56.2		
150.0	45692.8	-59.3		
133.4	48090.1	-63.7		
100.0	53919.2	-63.9		
70.0	61122.6	-64.6		
62.2	63510.8	-63.7		
57.2	65225.8	-59.5		
50.0	68003.1	-60.1		
47.4	69099.8	-61.8		
38.0	73687.4	-55.7		
35.6	75056.4	-57.2		

STATION ALTITUDE 3997.30 FEET MSL
15 NOV. 79 1400 HRS VST
ASCENSION NO. 374

SIGNIFICANT LEVEL DATA
3200060374
S M R
TABLE 6 (cont.)

MEASUREMENT	GEODETIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
30.0	73554.3	55.0	
29.0	37377.2	-55.0	

GEODETIC COORDINATES
32°48'03" LAT DEG
106°42'30" LON DEG

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STATION ALTITUDE 3997.30 FEET NSL
16 NOV. 79 1400 HRS MST
ASSEMBLION NO. 374

UPPER AIR DATA
3200060374
S M R

TABLE 7

GEOGRAPHIC COORDINATES
32°48'34" LAT DEG
106°42'30" LON DEG

GEOMETRIC ALTITUDE NSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRACE	REL.HUM. PERCENT	SOUND METER KNOTS	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
3997.3	963.8	17.9	-1.1	29.0	1058.6	664.4
4000.0	963.7	17.9	-1.1	29.9	1058.5	664.4
4000.0	963.5	15.5	-2.6	28.5	1045.2	662.6
4000.0	952.5	14.0	-4.1	28.1	1032.0	660.9
5000.0	337.1	12.5	-4.2	31.0	1019.0	659.1
5500.0	846.0	10.9	-4.1	34.6	1006.1	657.2
6000.0	807.1	9.3	-4.2	38.1	993.5	655.4
7000.0	732.5	7.7	-4.4	41.9	950.9	653.6
7500.0	777.3	6.3	-4.4	46.2	967.6	652.0
8000.0	793.6	5.0	-4.0	52.2	954.2	650.5
8500.0	749.5	4.2	-1.2	67.9	938.7	649.7
9000.0	735.5	3.4	-0.9	73.1	923.7	648.9
9500.0	721.9	2.7	-1.4	74.6	909.1	647.9
10000.0	708.4	1.9	-1.9	76.1	894.7	647.0
10500.0	695.2	1.3	-2.2	79.8	881.4	645.8
11000.0	682.2	-0.7	-2.5	87.5	869.8	644.0
11500.0	669.3	-2.0	-5.2	78.3	857.7	642.3
12000.0	656.6	-2.8	-5.2	83.2	844.0	641.3
12500.0	644.0	-3.7	-6.2	82.9	830.9	640.2
13000.0	631.7	-4.8	-7.7	79.6	818.3	638.9
13500.0	619.5	-5.9	-9.3	76.4	805.8	637.6
14000.0	607.7	-6.6	-10.8	73.1	793.5	636.3
14500.0	596.0	-7.8	-12.4	69.8	731.4	635.0
15000.0	584.5	-9.0	-13.6	69.2	769.7	633.6
15500.0	573.1	-10.0	-16.1	60.9	757.9	632.3
16000.0	561.9	-10.9	-20.6	44.4	745.7	631.2
16500.0	550.9	-11.5	-27.1	25.9	733.1	630.3
17000.0	540.0	-12.5	-27.1	28.2	721.3	629.1
17500.0	529.3	-13.5	-27.1	30.5	709.7	628.0
18000.0	518.6	-14.5	-27.3	32.8	698.6	626.6
18500.0	508.5	-15.9	-27.7	35.1	688.3	625.0
19000.0	498.4	-17.0	-28.3	36.3	677.3	623.7
19500.0	488.4	-16.9	-29.8	31.5	663.7	623.7
20000.0	478.6	-18.1	-33.8	23.6	653.4	622.3
20500.0	468.9	-19.3	-35.0	23.2	643.3	620.8
21000.0	459.3	-20.6	-33.8	29.1	633.4	619.2
21500.0	450.0	-21.8	-33.1	35.0	623.6	617.7
22000.0	440.8	-23.1	-31.9	44.1	614.0	616.1
22500.0	431.7	-24.4	-31.4	52.3	604.4	614.5
23000.0	422.7	-25.7	-32.4	52.9	594.9	613.0

STATION ALTITUDE 3997.30 FEET MSL
16 NOV. 79 1400 HRS MST
ASCENSION NO. 374

UPPER AIR DATA
3200050374
S M R
TABLE 7 (cont)

GEODETIC ALTITUDE MSL FEET	PRESSURE MILIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DESP. POINT DEGREES CENTIGRADE	REL. HUM. PERCENT	ATM. SOUND METER KNOTS	SPEED OF SOUND KNOTS	DIRECTION DEGREES (DEGRESSIN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	414.0	-26.9	-33.5	53.5	585.6	611.4	228.5	13.2	1.000133
24000.0	405.4	-26.2	-35.2	56.1	576.3	609.8	227.5	14.3	1.000130
24500.0	396.8	-29.3	-33.9	64.6	566.9	608.4	227.9	15.7	1.000128
25000.0	388.5	-28.6	-34.7	65.4	557.7	606.9	228.3	17.6	1.000126
25500.0	380.2	-31.0	-35.5	62.2	543.5	605.4	228.8	19.7	1.000124
26000.0	372.1	-32.9	-34.9	54.7	539.4	603.9	228.1	21.1	1.000122
26500.0	364.1	-34.1	-34.1	47.1	530.5	602.4	227.1	22.2	1.000119
27000.0	355.3	-35.2	-35.6	40.6	521.7	601.0	228.4	21.3	1.000117
27500.0	348.5	-35.8	-35.8	45.2	512.9	599.4	230.8	19.6	1.000115
28000.0	340.9	-37.7	-46.5	38.5	504.3	597.9	234.6	16.7	1.000113
28500.0	333.5	-38.9	-47.9	37.4	495.9	596.3	240.7	13.3	1.000111
29000.0	326.2	-46.1	-49.3	36.2	487.6	594.8	246.6	8.7	1.000109
29500.0	319.1	-41.3	-50.7	35.1	479.4	593.2	263.1	4.1	1.000107
30000.0	312.0	-41.6	-54.5	22.9**	469.4	592.8	340.3	3.5	1.000105
30500.0	305.1	-41.0	-61.3	9.8**	459.5	592.5	311.6	7.2	1.000102
31000.0	298.3	-42.2	-42.2	42.2	449.9	592.1	12.6	10.7	1.000100
31500.0	291.6	-42.8	-43.5	41.3	441.1	591.3	12.9	12.7	1.000098
32000.0	285.1	-43.5	-44.1	43.2	432.4	590.4	12.1	14.9	1.000096
32500.0	278.7	-44.1	-44.1	42.3	423.9	589.6	8.9	16.9	1.000094
33000.0	272.5	-44.7	-45.4	41.5	415.6	588.8	8.2	18.9	1.000093
33500.0	266.4	-46.0	-46.0	40.7	407.4	587.9	353.7	21.3	1.000091
34000.0	260.4	-46.7	-46.7	399.4	587.1	351.6	24.4	1.000089	
34500.0	254.5	-46.7	-46.7	391.5	566.3	349.9	27.6	1.000087	
35000.0	248.0	-47.2	-47.2	383.6	585.6	348.9	29.9	1.000085	
35500.0	243.2	-47.5	-47.5	375.1	565.5	348.1	32.2	1.000084	
36000.0	237.6	-48.1	-48.1	367.7	564.4	350.0	36.3	1.000082	
36500.0	232.1	-49.0	-49.0	360.7	583.2	352.8	40.5	1.000080	
37000.0	226.7	-49.9	-49.9	353.9	582.0	357.2	42.7	1.000079	
37500.0	221.5	-50.9	-50.9	347.1	580.8	31.4	44.9	1.000077	
38000.0	216.4	-51.8	-51.8	340.6	579.6	2.3	44.4	1.000076	
38500.0	211.9	-52.7	-52.7	334.1	578.4	2.8	43.4	1.000074	
39000.0	206.5	-53.6	-53.6	327.8	577.2	3.1	43.0	1.000073	
39500.0	201.8	-54.5	-54.5	321.5	576.0	3.4	43.0	1.000072	
40000.0	197.1	-55.2	-55.2	315.0	575.1	4.7	41.7	1.000070	
40500.0	192.4	-55.8	-55.8	308.3	574.4	7.5	39.0	1.000069	
41000.0	187.9	-56.3	-56.3	301.8	573.7	10.5	36.3	1.000067	
41500.0	183.4	-56.8	-56.8	295.4	573.0	11.7	33.1	1.000066	
42000.0	179.1	-56.6	-56.6	288.2	573.3	13.1	29.9	1.000064	
42500.0	174.9	-56.3	-56.3	280.9	573.7	8.4	28.9	1.000063	
43000.0	170.7	-56.6	-56.6	274.7	573.3	2.2	28.7	1.000061	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3997.30 FEET MSL
16 NOV. 79 1400 HRS MST
ASCENSION NO. 374

UPPER AIR DATA
3200060374
S M R
TABLE 7 (cont.)

GEODETIC COORDINATES
32.46034 LAT DEG
106.42307 LON DEG

GEOMETRIC ALTITUDE M.S.L. FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
43500.0	166.7	-57.1		268.8	572.6	356.9	29.6	1.000060
44000.0	162.7	-57.6		263.0	572.0	353.0	31.6	1.000059
44500.0	158.9	-58.1		257.3	571.3	349.6	33.1	1.000057
45000.0	155.1	-58.6		251.8	570.6	346.7	32.2	1.000056
45500.0	151.4	-59.1		246.4	570.0	343.6	31.4	1.000055
46000.0	147.6	-59.6		241.3	569.0	340.3	28.7	1.000054
46500.0	144.2	-60.8		236.5	567.7	336.2	25.7	1.000053
47000.0	140.7	-61.7		231.8	566.5	334.2	24.7	1.000052
47500.0	137.3	-62.6		227.2	565.3	334.9	25.5	1.000051
48000.0	134.0	-63.5		222.7	564.0	335.3	26.4	1.000050
48500.0	130.7	-63.7		217.4	563.8	335.4	27.7	1.000048
49000.0	127.5	-63.7		212.1	563.8	335.5	29.0	1.000047
49500.0	124.4	-63.7		207.0	563.7	333.7	28.1	1.000046
50000.0	121.4	-63.8		201.9	563.7	331.2	26.7	1.000045
50500.0	118.4	-63.8		197.0	563.7	328.7	25.1	1.000044
51000.0	115.5	-63.8		192.2	563.7	326.1	23.1	1.000043
51500.0	112.7	-63.8		187.6	563.7	323.3	21.4	1.000042
52000.0	110.0	-63.8		183.0	563.6	322.0	20.9	1.000041
52500.0	107.3	-63.9		178.5	563.6	320.5	20.4	1.000040
53000.0	104.6	-63.9		174.2	563.6	324.8	20.2	1.000039
53500.0	102.1	-63.9		170.0	563.6	330.1	20.0	1.000038
54000.0	99.6	-63.9		165.8	563.5	333.3	18.5	1.000037
54500.0	97.2	-64.0		161.8	563.5	335.2	15.7	1.000036
55000.0	94.9	-64.0		157.9	563.4	336.5	13.2	1.000035
55500.0	92.5	-64.1		154.1	563.3	331.0	12.4	1.000034
56000.0	90.2	-64.1		150.3	563.3	324.8	11.7	1.000033
56500.0	88.0	-64.2		146.7	563.2	325.9	11.7	1.000033
57000.0	85.9	-64.2		143.1	563.1	329.0	11.9	1.000032
57500.0	83.8	-64.2		139.7	563.1	328.0	11.9	1.000031
58000.0	81.7	-64.3		136.3	563.0	319.7	11.8	1.000030
58500.0	79.7	-64.3		133.0	562.9	311.4	11.9	1.000030
59000.0	77.8	-64.4		129.8	562.9	303.9	12.8	1.000029
59500.0	75.9	-64.4		126.6	562.8	297.6	14.0	1.000028
60000.0	74.0	-64.5		123.5	562.7	295.5	14.9	1.000027
60500.0	72.2	-64.5		120.6	562.7	297.2	15.4	1.000026
61000.0	70.4	-64.6		117.6	562.6	298.8	15.8	1.000026
61500.0	68.7	-64.5		114.7	562.8	302.7	15.0	1.000026
62000.0	67.0	-64.3		111.8	563.0	307.0	14.2	1.000025
62500.0	65.4	-64.1		109.0	563.3	312.4	13.3	1.000024
63000.0	63.8	-63.9		106.2	563.6	319.1	12.3	1.000024

STATION ALTITUDE 3997.30 FEET MSL
16 NOV. 79 1400 HRS MST
ASCENSION NO. 374

UPPER AIR DATA
3200060374
S M R
TABLE 7 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE AIR MILLIBARS	TEMPERATURE AIR DEGREES C	WIND DIRECTION DEGREES (TIN)	SPEED OF WIND DATA KNOTS	INDEX OF REFRACTION
		WIND POINT PERCENT	REL. HUM. %	SOUND METER KNOTS	
03000.0	62.2	-63.7	103.5	563.8	1.000023
04000.0	50.7	-52.5	103.4	565.4	1.000022
04500.0	52.3	-61.3	97.4	567.1	9.9
05000.0	57.8	-60.4	94.5	568.7	8.5
05500.0	56.4	-59.6	92.1	569.4	8.1
06000.0	55.1	-59.7	89.9	569.2	8.0
06500.0	53.3	-59.5	87.8	569.1	7.9
07000.0	52.5	-59.9	85.7	568.9	7.8
07500.0	51.2	-60.9	83.7	568.8	7.7
08000.0	50.0	-60.1	81.8	568.6	7.6
08500.0	49.8	-60.9	80.1	567.6	7.5
09000.0	47.6	-51.6	78.5	566.6	7.4
09500.0	40.2	-61.3	76.4	567.1	7.3
10000.0	45.4	-60.6	74.4	568.0	7.2
10500.0	44.3	-59.9	72.4	568.9	7.1
11000.0	43.3	-59.3	70.5	569.7	7.0
11500.0	42.2	-58.6	68.6	570.6	6.9
12000.0	41.2	-57.9	66.7	571.5	6.8
12500.0	40.2	-57.3	64.9	572.4	6.7
13000.0	39.3	-56.6	63.2	573.3	6.6
13500.0	38.3	-55.9	61.5	574.2	6.5
14000.0	37.4	-56.0	60.1	574.0	6.4
14500.0	36.6	-56.6	58.8	575.3	6.3
15000.0	35.7	-57.1	57.6	572.5	6.2
15500.0	34.9	-56.9	56.2	572.9	6.1
16000.0	34.0	-56.6	54.8	573.3	6.0
16500.0	33.2	-56.3	53.4	573.7	5.9
17000.0	32.5	-56.0	52.1	574.1	5.8
17500.0	31.7	-55.7	50.8	574.5	5.7
18000.0	30.9	-55.4	49.5	574.9	5.6
18500.0	30.2	-55.1	48.3	575.3	5.5
19000.0	29.5	-54.8	47.1	575.6	5.4
19500.0	28.8	-54.6	46.0	575.9	5.3
20000.0	28.2	-54.4	44.8	576.2	5.2
20500.0	27.5	-54.1	43.8	576.6	5.1
21000.0	26.9	-53.9	42.7	576.9	5.0
21500.0	26.3	-53.7	41.7	577.2	4.9
22000.0	25.6	-53.4	40.7	577.5	4.8
22500.0	25.1	-53.2	39.7	577.8	4.7
23000.0	24.5	-52.9	38.7	578.1	4.6

STATION ALTITUDE 3997.30 FEET MSL
16 NOV. 79 1400 HRS MST
ASCENSION I.O. 374

UPPER AIR DATA
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S M R

TABLE 7 (cont)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILIBARS	TEMPERATURE AIR DEGREES	DEPOINT DEGREES	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
83590.0	23.9	-52.7			37.8	578.4	254.0	7.8
84000.0	23.4	-52.5			36.9	578.7	242.5	7.6
84500.0	22.8	-52.2			36.0	579.0	231.1	7.8
85000.0	22.3	-52.0			35.1	579.4	231.2	8.6
85500.0	21.8	-51.8			34.3	579.7	236.6	9.6
86000.0	21.3	-51.5			33.4	580.0	32.6	1.000007
86500.0	20.8	-51.3			32.6	580.3		1.000007
87000.0	20.3	-51.0			31.8	580.6		1.000007

GEODETIC COORDINATES
32.48034 LAT DEG
106.42307 LON DEG

STATION ALTITUDE 3997.30 FEET MSL
 16 NOV. 79 1400 HRS MST
 ASCENSION NO. 374

MANDATORY LEVELS
 3200060374
 S M R
 TABLE 8

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	REL.HUM. PERCENT	WIND DATA		
				AIR DEWPONT DEGREES	DIRECTION DEGREES (TN) CENTIGRADE	SPEED KNOTS
850.0	5078.	13.8	-4.4	28.	187.0	6.2
800.0	6738.	8.5	-4.3	40.	187.3	7.9
750.0	8474.	4.2	-1.3	67.	187.1	7.2
700.0	10309.	1.4	-2.2	77.	117.4	10.0
650.0	12250.	-3.3	-5.5	64.	112.2	14.1
600.0	14314.	-7.5	-11.8	71.	116.1	14.5
550.0	16519.	-11.6	-27.1	26.	118.3	14.3
500.0	18893.	-17.0	-28.2	37.	121.1	8.2
450.0	21469.	-21.8	-33.1	35.	246.6	10.7
400.0	24274.	-28.9	-33.5	64.	227.7	15.2
350.0	27361.	-36.2	-44.9	40.	230.3	19.9
300.0	30816.	-42.0			12.4	9.2
250.0	34821.	-47.2			349.1	29.3
200.0	39594.	-54.9			34.4	43.0
175.0	42379.	-56.3			8.8	29.0
150.0	45570.	-59.3			342.5	30.7
125.0	49265.	-63.7			334.2	26.4
100.0	53754.	-63.9			332.9	19.1
80.0	58236.	-64.3			313.1	11.8
70.0	60914.	-64.6			299.5	15.7
60.0	64015.	-61.9			322.2	9.3
50.0	67749.	-60.1			285.9	17.3
40.0	72323.	-57.1			353.8	8.4
30.0	78320.	-55.0			266.7	8.7
25.0	82159.	-53.2			294.2	8.3
20.0	86900.	-50.9				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.